SEQUENCE LISTING

<110> Consortium fuer elektrochemische Industrie GmbH <120> Feedback-resistant Homoserine-Transsuccinylases <130> CO-P####### <140> <141> <160> 12 <170> PatentIn Ver. 2.0 <210>1 <211> 930 <212> DNA <213> Escherichia coli <220> <221> CDS <222> (1)..(930) <300> <301> Blattner, F. R. <302> The complete genome sequence of Escherichia coli K-12. <303> Science <304> 277 <305> 5331 <306> 1453-1474 <307> 1997 <400> 1 atg ccg att cgt gtg ccg gac gag cta ccc gcc gtc aat ttc ttg cgt 48 Met Pro Ile Arg Val Pro Asp Glu Leu Pro Ala Val Asn Phe Leu Arg 1 5 10 15 gaa gaa aac gtc ttt gtg atg aca act tct cgt gcg tct ggt cag gaa 96 Glu Glu Asn Val Phe Val Met Thr Thr Ser Arg Ala Ser Gly Gln Glu 20 25 att cgt cca ctt aag gtt ctg atc ctt aac ctg atg ccg aag aag att 144 Ile Arg Pro Leu Lys Val Leu Ile Leu Asn Leu Met Pro Lys Lys Ile 35 40 45

gaa act gaa aat cag ttt ctg cgc ctg ctt tca aac tca cct ttg cag 192 Glu Thr Glu Asn Gln Phe Leu Arg Leu Leu Ser Asn Ser Pro Leu Gln 55 60 gtc gat att cag ctg ttg cgc atc gat tcc cgt gaa tcg cgc aac acg 240 Val Asp Ile Gln Leu Leu Arg Ile Asp Ser Arg Glu Ser Arg Asn Thr 65 70 ccc gca gag cat ctg aac aac ttc tac tgt aac ttt gaa gat att cag 288 Pro Ala Glu His Leu Asn Asn Phe Tyr Cys Asn Phe Glu Asp Ile Gln 90 85 95 gat cag aac ttt gac ggt ttg att gta act ggt gcg ccg ctg ggc ctg 336 Asp Gln Asn Phe Asp Gly Leu Ile Val Thr Gly Ala Pro Leu Gly Leu 100 105 110 gtg gag ttt aat gat gtc gct tac tgg ccg cag atc aaa cag gtg ctg 384 Val Glu Phe Asn Asp Val Ala Tyr Trp Pro Gln Ile Lys Gln Val Leu 115 120 gag tgg tcg aaa gat cac gtc acc tcg acg ctg ttt gtc tgc tgg gcg 432 Glu Trp Ser Lys Asp His Val Thr Ser Thr Leu Phe Val Cys Trp Ala 130 135 140 gta cag gcc gcg ctc aat atc ctc tac ggc att cct aag caa act cgc 480 Val Gln Ala Ala Leu Asn Ile Leu Tyr Gly Ile Pro Lys Gln Thr Arg 145 150 155 160 acc gaa aaa ete tet gge gtt tae gag eat eat att ete eat eet eat 528 Thr Glu Lys Leu Ser Gly Val Tyr Glu His His Ile Leu His Pro His 165 170 gcg ctt ctg acg cgt ggc ttt gat gat tca ttc ctg gca ccg cat tcg 576 Ala Leu Leu Thr Arg Gly Phe Asp Asp Ser Phe Leu Ala Pro His Ser 180 185 190 cgc tat gct gac ttt ccg gca gcg ttg att cgt gat tac acc gat ctg 624 Arg Tyr Ala Asp Phe Pro Ala Ala Leu Ile Arg Asp Tyr Thr Asp Leu 195 200 205 gaa att ctg gca gag acg gaa gaa ggg gat gca tat ctg ttt gcc agt 672

Glu Ile Leu Ala Glu Thr Glu Glu Gly Asp Ala Tyr Leu Phe Ala Ser

220

210

aaa gat aag cgc att gcc ttt gtg acg ggc cat ccc gaa tat gat gcg 720 Lys Asp Lys Arg Ile Ala Phe Val Thr Gly His Pro Glu Tyr Asp Ala caa acg ctg gcg cag gaa ttt ttc cgc gat gtg gaa gcc gga cta gac 768 Gln Thr Leu Ala Gln Glu Phe Phe Arg Asp Val Glu Ala Gly Leu Asp ccg gat gta ccg tat aac tat ttc ccg cac aat gat ccg caa aat aca 816 Pro Asp Val Pro Tyr Asn Tyr Phe Pro His Asn Asp Pro Gln Asn Thr ccg cga gcg agc tgg cgt agt cac ggt aat tta ctg ttt acc aac tgg 864 Pro Arg Ala Ser Trp Arg Ser His Gly Asn Leu Leu Phe Thr Asn Trp ctc aac tat tac gtc tac cag atc acg cca tac gat cta cgg cac atg 912 Leu Asn Tyr Tyr Val Tyr Gln Ile Thr Pro Tyr Asp Leu Arg His Met aat cca acg ctg gat taa Asn Pro Thr Leu Asp <210> 2 <211>309 <212> PRT <213> Escherichia coli <400> 2 Met Pro Ile Arg Val Pro Asp Glu Leu Pro Ala Val Asn Phe Leu Arg Glu Glu Asn Val Phe Val Met Thr Thr Ser Arg Ala Ser Gly Gln Glu Ile Arg Pro Leu Lys Val Leu Ile Leu Asn Leu Met Pro Lys Lys Ile Glu Thr Glu Asn Gln Phe Leu Arg Leu Leu Ser Asn Ser Pro Leu Gln Val Asp Ile Gln Leu Leu Arg Ile Asp Ser Arg Glu Ser Arg Asn Thr

Pro Ala Glu His Leu Asn Asn Phe Tyr Cys Asn Phe Glu Asp Ile Gln 85 90 95
Asp Gln Asn Phe Asp Gly Leu Ile Val Thr Gly Ala Pro Leu Gly Leu 100 105 110
Val Glu Phe Asn Asp Val Ala Tyr Trp Pro Gln Ile Lys Gln Val Leu 115 120 125
Glu Trp Ser Lys Asp His Val Thr Ser Thr Leu Phe Val Cys Trp Ala 130 135 140
Val Gln Ala Ala Leu Asn Ile Leu Tyr Gly Ile Pro Lys Gln Thr Arg 145 150 155 160
Thr Glu Lys Leu Ser Gly Val Tyr Glu His His Ile Leu His Pro His 165 170 175
Ala Leu Leu Thr Arg Gly Phe Asp Asp Ser Phe Leu Ala Pro His Ser 180 185 190
Arg Tyr Ala Asp Phe Pro Ala Ala Leu Ile Arg Asp Tyr Thr Asp Leu 195 200 205
Glu Ile Leu Ala Glu Thr Glu Glu Gly Asp Ala Tyr Leu Phe Ala Ser 210 215 220
Lys Asp Lys Arg Ile Ala Phe Val Thr Gly His Pro Glu Tyr Asp Ala 225 230 235 240
Gln Thr Leu Ala Gln Glu Phe Phe Arg Asp Val Glu Ala Gly Leu Asp 245 250 255
Pro Asp Val Pro Tyr Asn Tyr Phe Pro His Asn Asp Pro Gln Asn Thr 260 265 270
Pro Arg Ala Ser Trp Arg Ser His Gly Asn Leu Leu Phe Thr Asn Trp 275 280 285
Leu Asn Tyr Tyr Val Tyr Gln Ile Thr Pro Tyr Asp Leu Arg His Met 290 295 300
Asn Pro Thr Leu Asp

```
<210>3
<211>30
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence:
   Oligonucleotide
                                metAfw
<400> 3
gatcccatgg ctccttttag tcattcttat
                                               30
<210>4
<211> 36
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Oligonucleotide
   metArev
<400> 4
gategagete agtaetatta atecagegtt ggatte
                                                  36
<210> 5
<211>33
<212> DNA
<213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Oligonucleotide
   GAPDHfw
<400> 5
gtcgacgcgt gaggcgagtc agtcgcgtaa tgc
                                                   33
<210>6
<211>42
<212> DNA
<213> Artificial Sequence
```

<220> <223> Description of Artificial Sequence: Oligonucleo GAPDHrevII	tide
<400> 6 gaccttaatt aagateteat atgtteeace agetatttgt ta	42
<210> 7 <211> 37 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Oligonucleo metAfw2	tide
<400> 7 catggeteet tttagteatt ettatattet aaegtag 37	,
<210> 8 <211> 47 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Oligonucleon metArev2	tide
<400> 8 acgcgtatgc atccagagct cagtactatt aatccagcgt tggattc	47
<210> 9 <211> 25 <212> DNA <213> Artificial Sequence	
<220> n=1:1:1:1 mixture of A,T,C and G. <223> Description of Artificial Sequence: Oligonucleon metAmutfw1	tide
<400> 9	

- <210> 10
- <211> 23
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Oligonucleotide metAmutrev1
- <400> 10

gacgtaatag ttgagccagt tgg

23

- <210>11
- <211> 24
- <212> DNA
- <213> Artificial Sequence
- <220> n=1:1:1:1 mixture of A,T,C and G.
- <223> Description of Artificial Sequence: Oligonucleotide metAmutfw2

<400> 11

nnnggtttga ttgtaactgg tgcg

24

- <210> 12
- <211>21
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence: Oligonukleotid metAmutrev2

<400> 12

aaagttetga teetgaatat e